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ABSTRACT

A study was conducted to identify and describe evaluated, exemplary activities in career education (K-12) which represent the best of the current career education programs and practices referred to in Public Law 93-380. The major tasks of the study were to: (1) establish criteria for identifying evaluated, exemplary activities; (2) search for activities that met these criteria; (3) review and screen activities according to these criteria; (4) visit those activities identified as having produced objective evidence of effectiveness to obtain further evaluative and descriptive information; (5) prepare detailed descriptions of career education activities meeting the criteria and summary descriptions for submission to the United States Office of Education and to the Joint Dissemination Review Panel (JDRP) of the Education Division, Department of Health, Education, and Welfare; (6) develop prototype evaluation designs for career education activities; and (7) prepare a final technical report including an analysis of evaluation in public school career education activities. (This executive summary describes the manner in which these tasks were carried out; see CE 018 212 for the final technical report.) On the basis of objective evidence of effectiveness, JDRP approved seven of the ten submissions for dissemination through the Office of Education's National Diffusion Network and by its Office of Career Education. (EM)

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EXECUTIVE SUMMARY

OF

FINAL TECHNICAL REPORT

IDENTIFICATION OF EVALUATED, EXEMPLARY ACTIVITIES IN CAREER EDUCATION (K-12)

31 July 1978

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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CE 018 823

This document is a summary of the final technical report of a study conducted by the American Institutes for Research (AIR), under contract to the U.S. Office of Education (USOE). The study summarized here aimed to identify and describe evaluated, exemplary activities in career education (K-12), which represent the "best of the current career education programs and practices" referred to in Public Law 93-380. It was intended that activities identified and described would serve as guides for school districts seeking to improve the evaluation process and to adopt/adapt career education activities which have been objectively evaluated and which show reasonable evidence of effectiveness.

The major tasks of the study were to:

- establish criteria for identifying evaluated, exemplary activities;
- search for activities that met these criteria;
- review and screen activities according to these criteria;
- visit those activities identified as having produced objective evidence of effectiveness to obtain further evaluative and descriptive information;
- prepare detailed descriptions of the career education activities meeting the criteria, and prepare summary descriptions for submission to USOE and to the Joint Dissemination Review Panel (JDRP) of the Education Division, Department of Health, Education, and Welfare;
- develop prototype evaluation designs for career education activities; and
- prepare a final technical report including an analysis of evaluation in public school career education activities.

The remainder of this summary describes the manner in which AIR carried out these tasks.

To be eligible for consideration as potential members of the set of career education activities for review, activities had to meet the following preliminary screening criteria: (1) the activities had to be currently operating; (2) only those activities that had conducted activity evaluations since June 1974 were considered; (3) reliance had to be placed on the

review of existing activity evaluations; (4) criteria for screening activities limited the selection to those for which evidence of effectiveness was based on measured achievement and comparison between activity participants and an appropriate comparison or standard; (5) activities were restricted to those using federal, state, or local support; and (6) the activities had to be properly classified as career education.

The Screening Process

Once the domain of potential candidates was identified through application of the preliminary criteria listed above, activities were selected and evaluated according to more detailed and stringent criteria. These criteria are categorized and described below.

Activity Effectiveness

TREATMENT

OBJECTIVES	Objectives of the activity are relevant to the general goals of career education.
	Objectives are either explicitly stated or clearly implied.
PROCEDURES	Procedures represent an implementation of the activity objectives.
	Procedures are consistently employed by staff resonsible for instructional and diagnostic activities and services.
	Procedures or activity components directed at career education objectives are not confounded with nonactivity components.
	Procedures provide for ascertaining the entry-skill levels of participants.
	Procedures provide for frequent assessment of student progress.
	Adequate details of diagnostic and instructional procedures are available to validate descriptions of activity methodology.

EVALUATION

FOCUS	Evaluation data are available on those activity objectives that are relevant to improvement of career education skills.
AVAILABILITY	Information required for validation of activity success can be obtained.
	Available information is adequate to validate activity success.

EVALUATION SAMPLE	Critical descriptive and statistical data related to characterizing the activity group are provided. In instances where the evaluation group was only a portion of the activity group, procedures for selecting the group are specified.
COMPARISON GROUP, IF ANY	Critical descriptive and statistical data related to characterizing the comparison group are provided. Procedures for selecting the group are specified. The group is reasonably comparable to the activity participants upon which the evaluation is based. If a comparison is being made between activity and nonactivity persons, important differences between these groups in kinds and amounts of instructional methods, activities, and services are specified.
CHARACTERISTICS OF THE MEASURES USED	Measures are appropriate to evaluate objectives of the activity. Measures are appropriate for activity participants. Measures are either standardized tests or are specially constructed tests with reasonable and verifiable validity and reliability data.
SCHEDULE	The data collection schedule for measures and tests administered to activity and comparison or baseline groups identifies exactly when data collection occurred and identifies measures and tests as pre-, during-, post-activity, or follow-up.
DATA PROCESSING	Classification and grouping of raw data for processing is appropriate for methods of statistical analysis used.
DESIGN	The evaluation design provides for an adequately controlled assessment of activity effects in terms of basic objectives of the activity.
STATISTICS	The statistics and statistical analyses used implement the design of the evaluation.
EDUCATIONAL SIGNIFICANCE	Educational significance is demonstrated if the performance of the activity group is greater with respect to activity objectives than would be expected for appropriate reference groups (e.g., using typical instructional materials and procedures with a group comparable to activity participants).
CONSISTENCY OF RESULTS	The evaluation data identified either give promise of replication or are verified by data from adequate replication(s) of the activity.

Activity Operation

STAFF A role definition is available for each category of activity staff and contains all details required for replication.

The skills and special training required for the activity staff do not require an unreasonable training period.

PARENT/COMMUNITY INVOLVEMENT If this is a key component of the career education activity, procedures and guidelines for implementing parent/community involvement contain all details required for replication.

CONTEXT Significant descriptive details about the activity setting that should be taken into account in replicating the activity at another site can be documented.

COST (The following cost data are to be reported on a per-pupil and total activity basis.)

Direct and indirect costs for operation of the activity can be identified.

Fixed and variable costs of the activity can be identified.

Installation and maintenance costs of the activity can be identified.

INNOVATIVENESS The activity can justifiably be said to use features recognized as new, creative, and unusual, or to use traditional practices that have produced exceptional results.

EXPORTABILITY The various activities, services, organizational details, and key procedural information are amenable for the purpose of wide-scale dissemination.

MATERIALS The necessary instructional materials can readily be made available in sufficient quantities to permit wide-scale dissemination and replication.

Procedures and guidelines for the implementation and use of activity materials are specified and indicate the scope and sequence of learning tasks.

EQUIPMENT Equipment required to operate the activity can be made available in sufficient quantities to make wide-scale dissemination and implementation feasible.

The cost of such equipment can reasonably be assumed to be within reach of school districts in the United States.

ACTIVITIES AND SERVICES The activities and services required for carrying out the exemplary practice or activity can be readily supplied to the extent necessary for wide-scale replication of the activity.

COMPLEXITY The complexity of all media required in the activity is not a limiting factor for its replication elsewhere.

Contacting Nominated Activities

AIR staff sought nominations of evaluated, exemplary career education activities from a wide range of federal, state, and local officials as well as from national laboratories and centers, third party evaluators, other individuals and institutions prominent in career education, and appropriate publications. In all, letters requesting nominations of potentially exemplary activities were sent to 296 individuals. As a result of those letters and other contacts made by AIR staff, 394 career education activities were nominated. The directors of all 394 activities received letters explaining the purposes of the study, setting forth the essential requirements for participation, and requesting a copy of their latest activity evaluation report. In summary, evaluation documents were sent by 257 activities; 137 other activities did not submit materials.

Selecting Potentially Exemplary Activities

AIR review of the 257 activity evaluations submitted revealed two major difficulties. First, relatively few local activities had obtained data in a way that permitted results for activity participants to be compared with the results that might be expected in the absence of the activity. Second, even when such comparisons were attempted, few local activity evaluation designs incorporated features that allowed project staff to rule out alternative interpretation of activity outcomes. Consequently, the application of the "well-evaluated, exemplary" criteria listed earlier in this summary resulted in the identification of only a very small number of activities that could be recommended to the Joint Dissemination Review Panel (JDRP) of the Education Division, Department of Health, Education, and Welfare for consideration as exemplary. It is this panel which approves the dissemination of information about effective educational practices, products, and projects funded with federal, state, or local monies and considered by the JDRP to be worthy of replication.

Ten activities which met the test of the above criteria, receiving positive ratings from six project staff reviewers across the three levels of review (preliminary, secondary, and final), were site-visited by project staff. The visits to the 10 sites served to: (1) validate activity evaluation data and provide additional evaluation information where needed, (2) furnish considerably more detailed information about activity management and operation,

and (3) inform project staff of unanticipated outcomes of activities through discussions with local staff and observations of activity functions.

Based upon review of activity documents, consultation with activity staff, and site visits, evaluation descriptions of each activity were prepared by AIR staff according to a designated format and submitted to the JDRP. The evaluation descriptions submitted by AIR to the JDRP are listed below by activity title and location:

Activity Title	Location
Career Development Program	Akron, Ohio
Developmental Career Guidance Project	Pima County, Arizona
EPIC, Inc.	Fort Lauderdale, Florida
Fostering a Team Approach to Career Education	Prince George's County, Maryland
Project CAP	Greenland, Arkansas
Project CDCC	Coloma, Michigan
Project CERES	Ceres, California
Project EPIC	Louisville, Kentucky
Project Equality	Seattle, Washington
Project MATCH	Ontario, California

Outcomes of the JDRP Review

The JDRP met three times to review all 10 of the AIR submissions. The outcome of these initial reviews was that six of the activities were approved for dissemination, while four of them were not approved. The six activities approved by the JDRP included: (1) the Akron Career Development Program, (2) Project CAP, (3) Project CDCC, (4) Project CERES, (5) Project Equality, and (6) Project MATCH. The Panel suggested to the directors of three of the four activities which were not approved that there were needs for stronger evidence of project effectiveness and for improved evaluation designs, permitting unequivocal conclusions to be reached regarding impact of project activities on target students.

To the director of the fourth activity (the Developmental Career Guidance Project of Pima County, Arizona), the Panel strongly urged that data concerning

several teacher and student variables possibly correlated with the treatment variable be included in a second JDRP submission. Such data would allow the Panelists to consider the exclusive relationship of the treatment to student scores on the activity criterion measures. A subsequent search of the school files by the activity director showed that these data did exist. They were put into tables and included in a revised submission which was forwarded to the JDRP for a second review. The outcome of the second review was that the JDRP approved the Developmental Career Guidance Project for nationwide dissemination.

On a percentage basis, 70% of AIR's submissions were approved for dissemination. This approval rate can be favorably compared with the average approval rate of 55% for all activities reviewed by the Panel since it was formed.

Detailed Activity Descriptions

For each of the ten career education activities visited and submitted for JDRP review, AIR staff prepared a written project description. These descriptions were to provide models for project planners, parent advisory groups, teachers, administrators, and others endeavoring to improve the career education of young people. The project descriptions were written in sufficient detail to permit decisions to be made regarding the desirability of attempting locally modified replications of the activities, and to indicate sources for further information about the activities. The information in each description was organized around eight major headings, including: (1) Project Overview, (2) Program Development, (3) Materials and Activities, (4) Parent and Community Involvement, (5) Staffing and Management, (6) Costs, (7) Evidence of Effectiveness, and (8) Conclusion.

Prototype Evaluation Designs

Based on analyses of evaluation designs used in activities reviewed, and on problems encountered by evaluators of career education activities, project staff developed models for evaluating six different types of career education activities. These step-by-step models are addressed to the career education practitioner in the local education agencies, and suggest simple, easy-to-follow procedures for evaluating supplementary activities, staff development, product development, career education facilities, indirect intervention and curriculum implementation. The models are presented in a handbook designed to make evaluation meaningful for practitioners.